

What is claimed is:

1. An inertial latch for an actuator of a disk drive that comprises:  
an inertial lever, which inertial lever includes:  
a first and a second pivot structure that are disposed to enable the inertial  
5 lever to rotate about a first or a second center of rotation;  
a first and a second magnetically attractive member that are disposed to  
enable the inertial lever to move to a predetermined position in the absence of a rotational  
shock; and  
a latch disposed to latch an actuator lock mechanism of the actuator.
- 10 2. The inertial latch of claim 1 wherein rotation about the first or the  
second center of rotation depends on a direction of a rotational shock applied to the disk  
drive.
3. A disk drive that includes an inertial latch, which disk drive  
comprises:  
15 an actuator that includes an actuator lock mechanism;  
a magnet;  
a first and a second locating mechanism disposed at predetermined  
locations with respect to the magnet;  
walls;  
20 an inertial latch that floats within an area constrained by positions of the  
walls and the first and second locating mechanisms, wherein the inertial latch includes an  
inertial lever, which inertial lever includes:  
a first and a second pivot structure that are disposed to enable the inertial  
lever to rotate about a first or a second center of rotation, which first and second center of  
25 rotation are provided by the first and second locating mechanisms;  
a first and a second magnetically attractive member that are disposed to  
cause the first and second pivot structures to abut the first and second locating mechanisms  
in the absence of a rotational shock; and  
a latch disposed to latch an actuator lock mechanism of the actuator.
- 30 4. The disk drive of claim 3 wherein the latch includes a pin and the  
actuator lock mechanism includes a first and a second cam features separated by a channel.

5. The disk drive of claim 4 wherein the pin is positioned to travel within the channel in the absence of a rotational shock.

6. The disk drive of claim 5 wherein the pin is positioned to engage the first cam feature in the presence of a clockwise rotational shock and to engage the second  
5 cam feature in the presence of a counterclockwise rotational shock.

7. The disk drive of claim 3 wherein the inertial latch rotates about the first center of rotation in the presence of a clockwise rotational shock and about the second center of rotation in the presence of a counterclockwise rotational shock.

8. The disk drive of claim 3 wherein the first and the second  
10 magnetically attractive members are steel members.